

The Overall Contributions of Chandler S. Robbins to Ornithology and Bird Conservation in the Americas

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Florida State University

Research
Wildlife
Biologist
USFWS-USGS
1945-2005



Research on
migratory
birds

Citizen
science

Public
education

Conservation
biology



Bird/habitat
relationships

Habitat
fragmentation

Population
limitation

Chandler S. Robbins

- 1918 born in Belmont, Massachusetts
- 1930 began birding at age 12
- 1934 took first Christmas Bird Count at age 16
- 1937 began banding at age 19
- 1940 graduated from Harvard University
- 1945 Patuxent Wildlife Research Center
- 1950 George Washington University, M.S.
- 1995 University of Maryland, D.Sc.
- 2005 retired, with 636 publications

A sample of Chan's coauthors

- Aldrich, J.W.
- Anderson, S.H.
- Blancher, P.
- Briggs, S.A.,
- Buckley, P.A.
- Bystrak, D.R.
- Dawson, D.K.
- DeSante, D.F.
- Dowell, B.A.
- Droege, S.
- Dunn, E.H.
- Erskine, A.J.
- Geissler, P.H.
- Greenberg, R.S.
- Howe, M.A.
- Klimkeiwicz, M.K.
- Lynch, J.F.
- Opler, P.A.
- Pardieck, K.
- Peterjohn, B.G.
- Sauer, J.R.
- Stewart, R.E.
- VanVelzen, W.T.
- Whitcomb, R.F.

Some of Chan's many awards

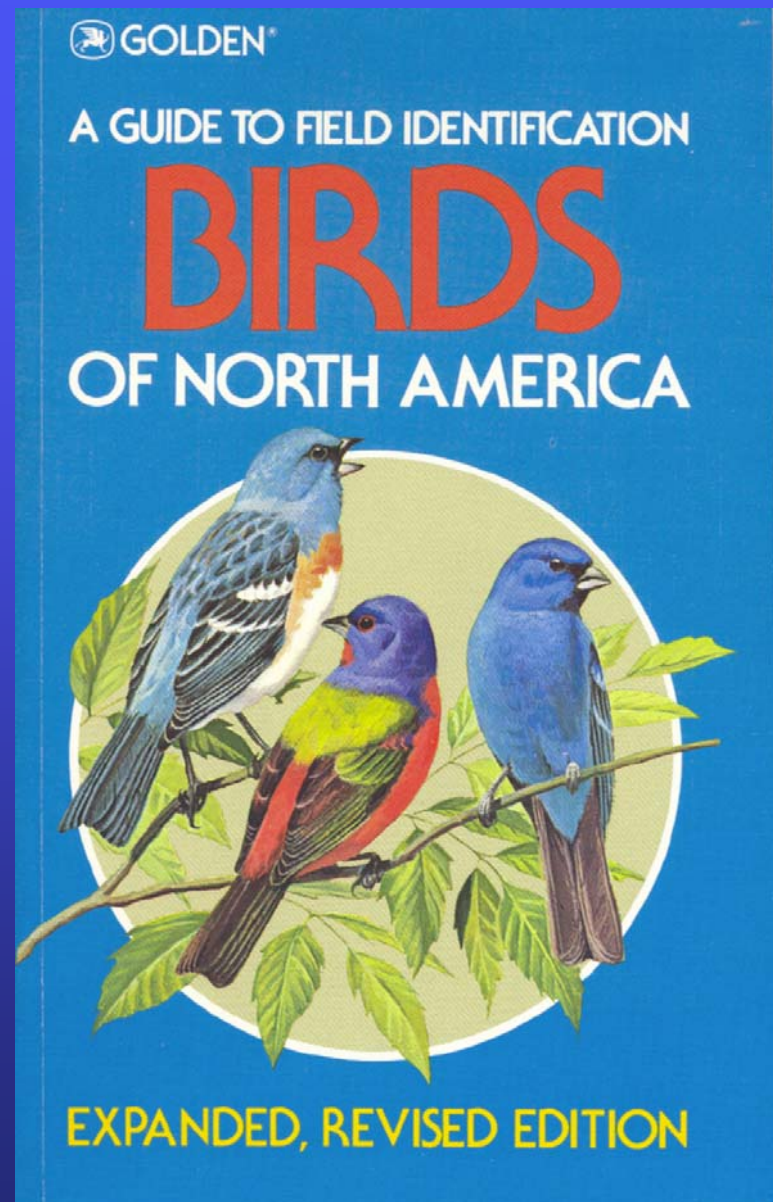
- 1979 Arthur A. Allen Medal, Cornell Laboratory of Ornithology
- 1987 Eugene Eisenmann Medal, Linnaean Society of New York
- 1990 Best Monograph Award, The Wildlife Society
- 1997 Elliot Coues Award, American Ornithologist's Union
- 2000 BBS, 30-Year Achievement Award
- 2005 Sixty Years of Service, DOI, USGS

Chan is best known for his field guide to the birds of North America

First edition: 1966

Second edition: 1983

“The future of birds is now in the hands of the younger generation”

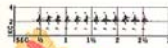


Included sonograms and range maps

180

● **WOODPECKERS** (Order Piciformes, Family Picidae) have a strong bill, sharply pointed for chipping and digging into tree trunks or branches for wood-boring insects. The stiff tail is used as a prop. Most species "drum" on resonant limbs, poles, or drainpipes. Flight is usually undulating, with wings folded against the body after each series of flaps. Nest is in a cavity chiseled deep into a large branch or trunk. Eggs, 4-8, are white.

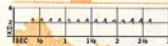
Flickers are jay-sized woodpeckers with brown back, no white on wings, and a black breast band. In flight note white rump, yellow or salmon under wings and tail. Often seen on ground eating ants.



YELLOW-SHAFTED FLICKER

Colaptes auratus

Common in open country near large trees. Undersurface of wing and tail feathers is golden, grading to orange or salmon in hybrids. Black "mustache" present except in adult female. Nape of neck is always red. Call of all flickers is a loud repeated *flick* or *flicker*; series repeated 2-7/min. Also a shrill descending *kee-oo*.



RED-SHAFTED FLICKER

Colaptes cafer

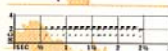
Common. Crown is brown, face gray; mustache of the male is red, not black, as in Yellow-shafted. The red nape is lacking. Wing and tail linings salmon.



GILDED FLICKER

Colaptes chrysoides

Common resident in the giant-cactus region of the Southwest, where it digs a nest hole in the saguaro. Told from Yellow-shafted by its brown crown, gray face, and lack of a red nape; from Red-shafted by its yellow wing and tail linings.



PILEATED WOODPECKER

Dryocopus pileatus

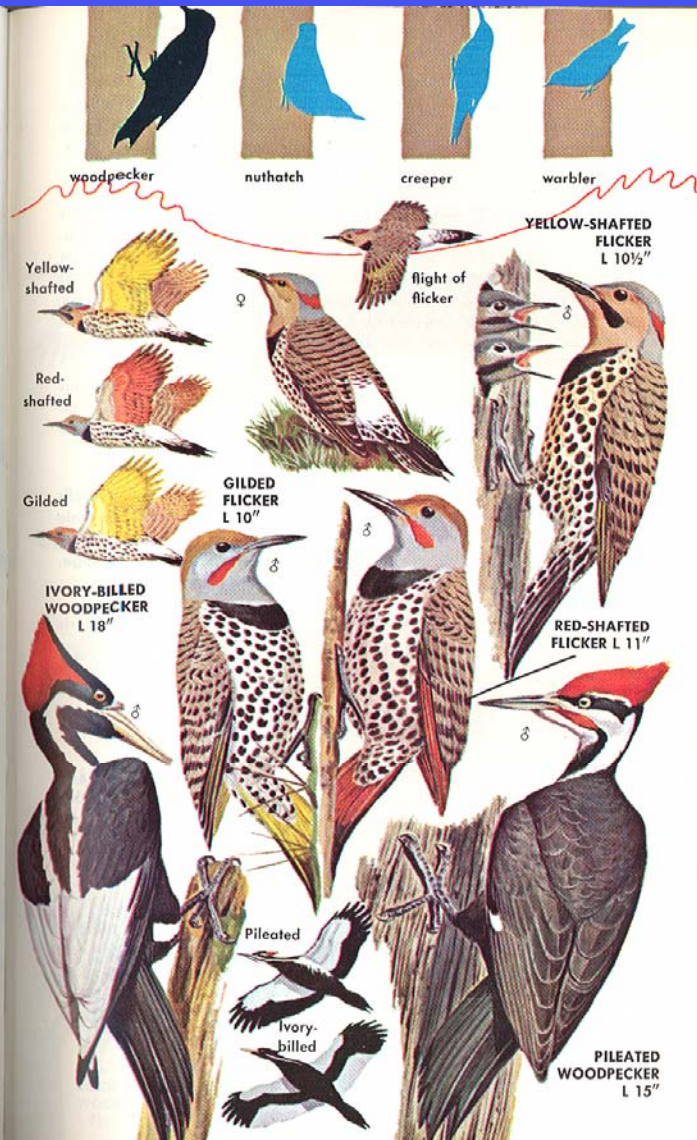
Uncommon and local; a wary bird of extensive deciduous or mixed forests. Solid black back distinguishes it from other large birds except crows and some hawks. It is conspicuously crested in all plumages. Flight is strong with irregular flaps of wings. Drumming is distinctive: loud, slow, softer at end. Call is a series, never single.



IVORY-BILLED WOODPECKER

Campéphilus principalis

On verge of extinction. Last reported in deep forests of southeast Texas, central La., northwest Fla., and S.C. Extensive white on wing, folded and in flight, and white bill are diagnostic. Male has red crest, female black. Call is a high-pitched single note.



Chan's primary subject:

Distribution of birds and their habitats

1. Breeding Bird Censuses and Winter Bird-population Studies
2. Operation Recovery
3. Birds of Maryland and DC
4. Atlas of the Birds of Maryland and DC
5. Minimum area requirements
6. Migrants in the Neotropics

BIRD-BANDING

A JOURNAL OF ORNITHOLOGICAL INVESTIGATION

Vol. XXIX

July, 1958

No. 3

"OPERATION RECOVERY"—THE ATLANTIC COASTAL NETTING PROJECT

By JAMES BAIRD, CHANDLER S. ROBBINS, AARON M. BAGG, and
JOHN V. DENNIS

BIRDS OF MARYLAND AND THE DISTRICT OF COLUMBIA

By

Robert E. Stewart and Chandler S. Robbins

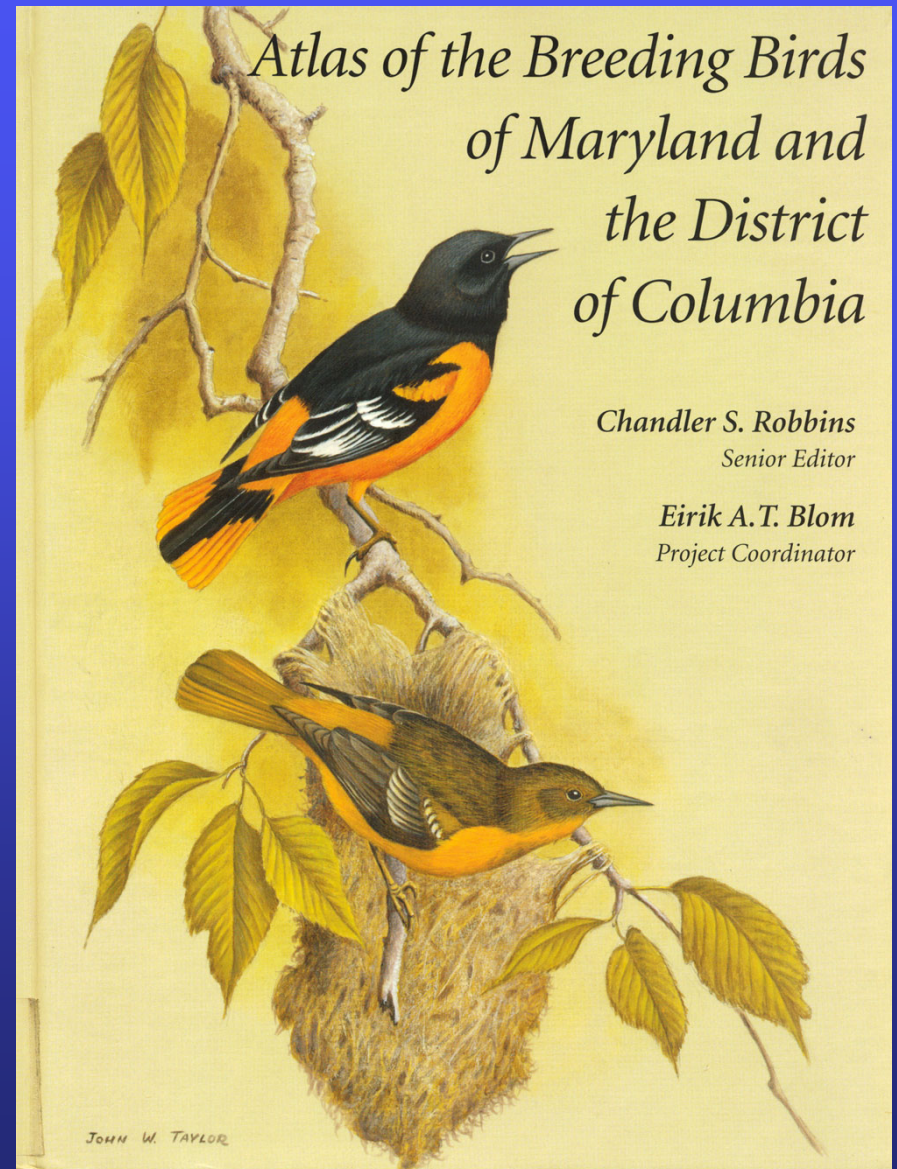
Wildlife Biologists, Branch of Wildlife Research

BUREAU OF SPORT FISHERIES AND WILDLIFE

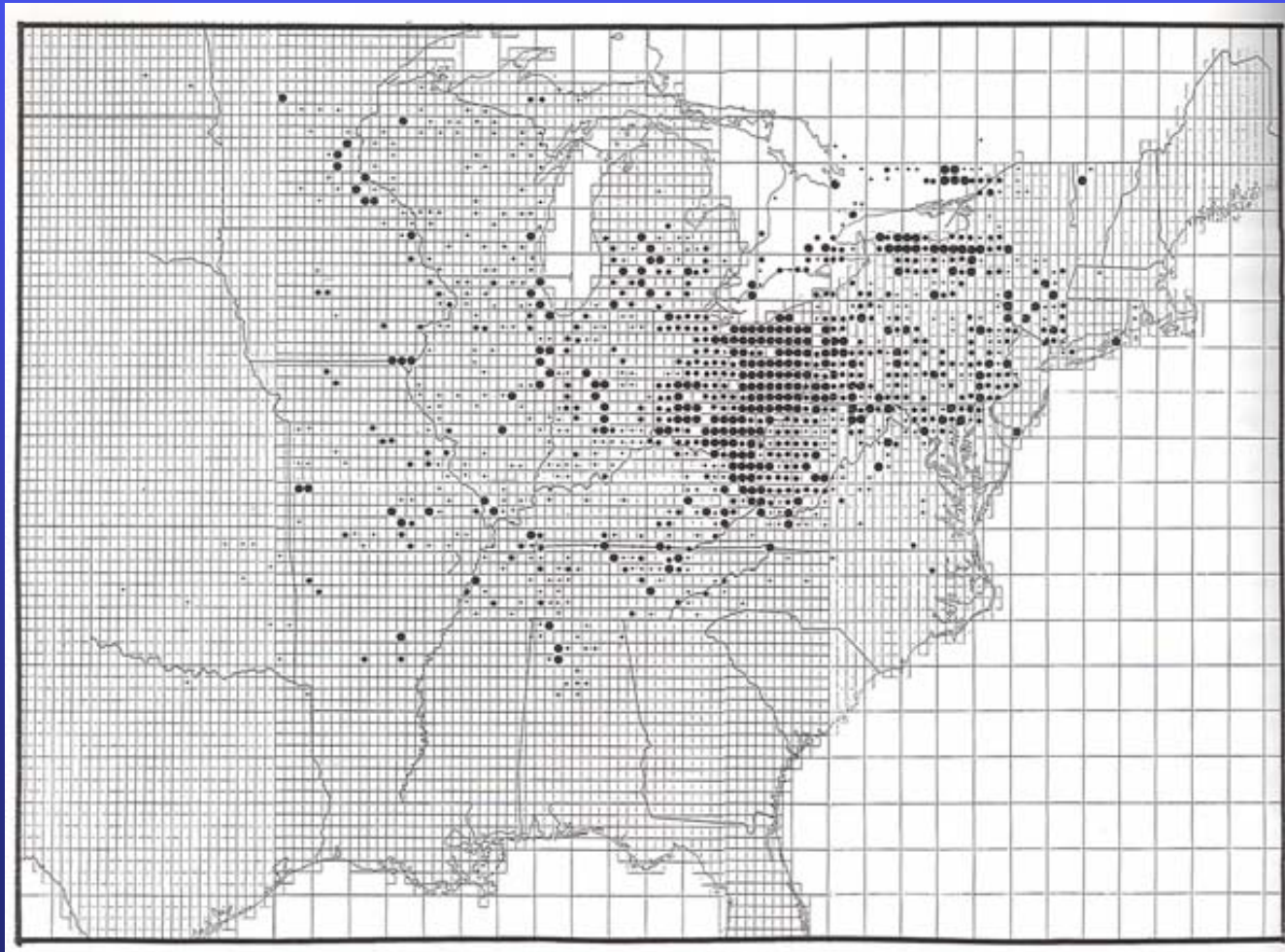


NUMBER 62

“Everyone lives in
an atlas block”



Distribution of the Cerulean Warbler based on Atlas data



Debate about the relevance of the Equilibrium Theory of Island Biogeography to the conservation of birds:

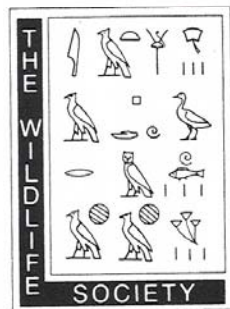
1976. Whitcomb, R.F., J.F. Lynch, P.A. Opler and C.S. Robbins. Island biogeography and conservation: strategy and limitations. *Science* 193:1030-1032

1989. Robbins, C. S., D. K. Dawson, and B. A. Dowell. Habitat area requirements of breeding forest birds of the Middle Atlantic states. *Wildlife Monographs* 103.

WILDLIFE MONOGRAPHS

(ISSN:0084-0173)

A Publication of The Wildlife Society



HABITAT AREA REQUIREMENTS OF BREEDING FOREST BIRDS OF THE MIDDLE ATLANTIC STATES

by

CHANDLER S. ROBBINS, DEANNA K. DAWSON,
AND BARBARA A. DOWELL

Robbins et al. (1989)

Eighteen of 75 species in 271 forests of 8 sizes were “area sensitive”:

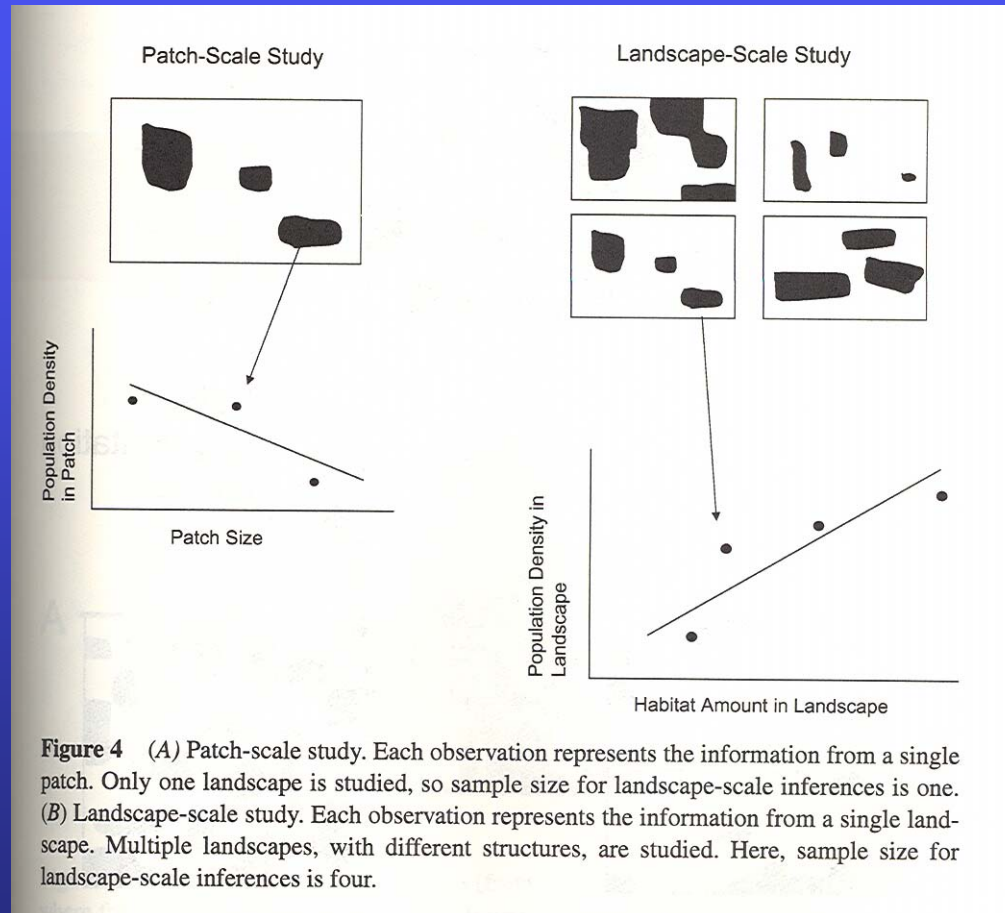
Variation in the number of 1-ha, 10-ha, and 50-ha forest patches that would have to be sampled for the probability of detecting the species to be the same as one random point in a forest with the maximum density for that species:

	1-ha	10-ha	50-ha
Red-eyed Vireo	11	3.7	2.2
Worm-eating Warbler	-	-	3.0

Conservation in action

- 1986 Maryland Critical Areas Act
- 1989 Woodland Conservation and Tree Preservation Act
- 1991 Forest Conservation Act
- 1992 Maryland Economic Growth, Resource Protection, and Planning Act

Landscape ecology today (Fahrig 2004)



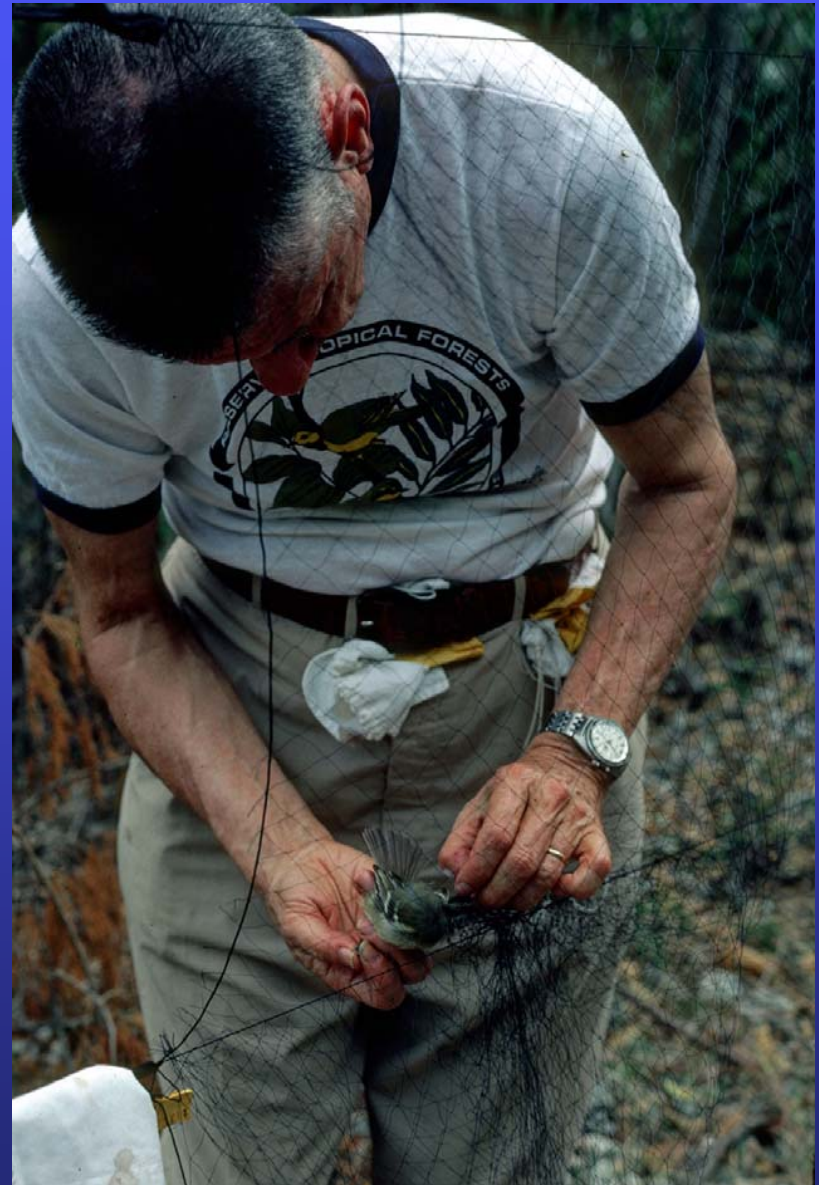
Migrants in the Neotropics

1990s

Teaching ornithology in
eastern Guatemala

Mapping bird distribution
in Belize

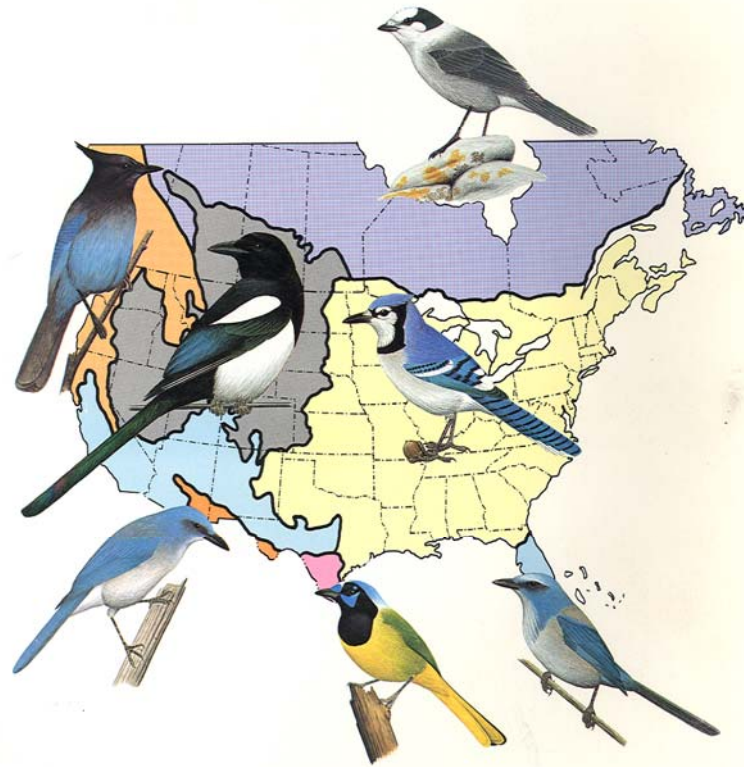
Traveled to Mexico, the
West Indies, and
northern South America



Chan's secondary subject: Trends in bird populations

1. Concern about widespread effects of pesticides on birds.
2. Breeding Bird Survey
 - a. Preliminary work in the mid-1960s
 - b. Bailey's ecoregions
 - c. Point counts
 - d. Stratified sampling
 - e. Route regression
 - f. Subsequent evolution of methods and interpretations

The Breeding Bird Survey: Its First Fifteen Years, 1965-1979



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE / RESOURCE PUBLICATION 157



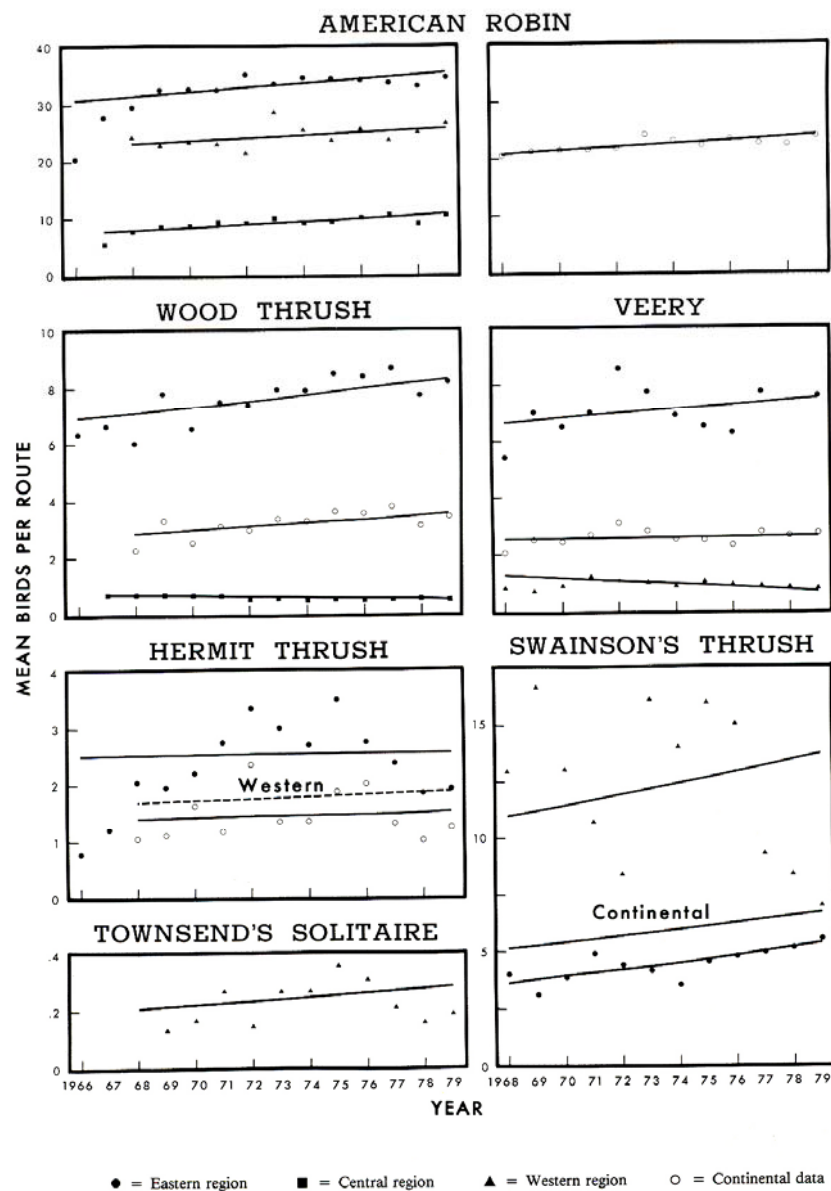


Fig. 44. Trends in robin and thrush populations.

1989. Robbins, C.S., J. R. Sauer, R. S. Greenberg and S. Droege. Population declines in North American birds that migrate to the Neotropics. Proc. Nat. Acad. Sci. USA 86: 7658-7662.

This paper provided evidence in the BBS data of declines in forest-dwelling Neotropical migrants in the 1980s and justification for concern about the effect of tropical deforestation as a limiting factor for Neotropical migrants.

With 40 years of BBS data (1966-2005) the concern is mostly about grassland birds that are short-distance migrants.

A role model for
young birders

An insightful
naturalist of the
highest caliber

An altruistic
editor

A magnet for
organizing
citizen-science
projects



A phenomenally
productive author

A good citizen as
a government
employee

A wonderful
friend among
professional and
amateur
ornithologists